Form PTO-1449

Sheet 1 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.: Filing Date:

10/551,350 October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

U.S. Patent Documents

Examino Initial*	er	Patent Number	Issue Date	Name
/AB/	_A1.	6924109	08/02/2005	Melcher
000000000000000000000000000000000000000	_ A2.	6902883	06/07/2005	Dunlay
	_ A3.	6875578	04/05/2005	Giuliano
	_ A4.	6759206	07/06/2004	Rubin
	_A5.	6716882	04/06/2004	Haces
-	_A6.	6716588	04/06/2004	Sammak
200000000000000000000000000000000000000	_A7.	6716582	04/06/2004	Gonye
000000000000000000000000000000000000000	_A8.	6671624	12/30/2003	Dunlay
	_A9.	6620591	09/16/2003	Dunlay
	_A10.	6590093	07/08/2003	Scaringe
99900000000000000000000000000000000000	_A11.	6573039	06/03/2003	Dunlay
V	_A12.	6544790	04/08/2003	Sabatini

Examiner:

/Amy Bowman/

Date Considered:

05/04/2009

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 2 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.:

10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

	 		
A13.	6514464	02/04/2003	Knebel
A14.	6416959	07/09/2002	Giuliano
A15.	5399663	06/04/2002	Haces
A16.	6331441	12/18/2001	Balch
A17.	6111086	08/29/2000	Scaringe
A18.	6110916	08/29/2000	Dunlay
A19.	6008400	12/28/1999	Scaringe
A20.	6989835	11/23/1999	Dunlay
A21.	5889136	03/30/1999	Scaringe
A22.	5834439	11/10/1998	Haces
A23.	5811274	09/22/1998	Palsson
A24.	5674908	10/07/1997	Haces
A25.	5674108	10/07/1997	Rolle
A26.	5487872	01/30/1996	Hafeman
A27.	5457527	10/10/1995	Manns
A28.	6951757	10/04/2005	Sabatini

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 3 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant: Serial No.: Devin Leake

10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

	the state of the s		
A29.	5998203	12/07/1999	Matulic-adamic
A30.	5591721	01/07/1999	Agrawal
A31.	5658731	08/19/1997	Sproat
A32.	5830653	11/03/1998	Froehler
A33.	5859221	01/12/1999	Cook
A34.	5872232	02/16/1999	Cook
A35.	5899136	03/30/1999	Scaringe
A36.	5898031	04/27/1999	Crooke
A37.	5856455	01/05/1999	Cook
A38.	6998206	12/07/1999	Cpwsert
A39.	6005087	12/21/1999	Cook
A40.	6116197	12/26/2000	Cook
A41.	6204027	03/20/2001	Goodchild
A42.	6277967	08/21/2001	Manoharan
A43.	6242589	06/15/2001	Cook
A44.	6391636	05/21/2002	Monia

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 4 of 31

Applicant: Serial No.:

Devin Leake

10/551,350

Att'y Docket No.: 16542.16.1a.3

Filing Date:

October 19, 2006

Group: 1635

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

A4	15.	6399297	06/04/2002	Baker
A4	16.	6420546	07/16/2002	Seliger
A	1 7.	6451991	09/17/2002	Martin
A	18 .	6458940	10/01/2002	Roberts
A	1 9.	6485974	11/26/2002	Papoff
A5	50.	6531584	03/11/2003	Cook
A5	51.	6608035	08/19/2003	Agrawal
A5	52.	6645943	11/11/2003	Agrawal
A.	53.	6653458	11/25/2003	Manoharan
A.	54.	6673611	01/06/2004	Thompson
A.	55.	6809193	10/26/2004	McKay
A.	56.	6683167	01/27/2004	Metelev
A.	57.	6936467	08/30/2005	Kmiec
A:	58.	7173014	02/06/2007	Agrawal
A:	59.	7045609	05/16/2006	Metelev
A	60.	7078196	07/18/2006	Tuschl
		·		

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 5 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant: Serial No.: Devin Leake 10/551,350

October 19, 2006

Filing Date: Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

# 1 · · · · · · · · · · · · · · · · · ·	<u> </u>		
A61	. 6600032	07/29/2003	Manoharan
A62	6043352	03/28/2000	Manoharan
A63	6841542	01/11/2005	Bartlemez
A64	4984624	05/15/1990	Suhadolnik
A65	5. 5023243	06/11/1991	Tullis
A66	5. 5138045	04/11/1992	Cook
A67	7. 5151510	09/29/1994	Stec
A68	3. 5214136	05/25/1993	Lin
A69	o. 5264562	11/23/1993	Matteucci
A70	5264564	11/23/1993	Matteucci
A71	. 5286717	02/15/1994	Cohen
A72	2. 5399676	03/21/1995	Froehler
A73	3. 5414077	05/09/1995	Lin
A74	1. 5434257	07/18/1995	Matteucci
A75	5. 5457191	01/10/1995	Cook
A76	5. 5459255	10/17/1995	Cook

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 6 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.:

10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

		 		
	_A77.	5484908	01/16/1996	Swaminathan
	_ A78.	5489677	02/06/1196	Sangvhi
. ———	_ A79.	5502177	03/26/1996	Matteucci
	_A80.	5514786	05/07/1996	Cook
<u> </u>	_A81.	5532130	07/02/1996	Alul
	_A82.	5578718	11/26/1996	Cook
	_A83.	5580767	07/01/1997	Cowsert
	_A84.	5587361	12/24/1996	Cook
,	_A85.	5587469	12/24/1996	Cook
 	_A86.	5587470	12/24/1996	Cook
	_A87.	5594121	01/14/1997	Froehler
	_ A88.	5596086	01/21/1997	Matteucci
	_A89.	5608046	03/04/1997	Cook
-	_ A90.	5610289	03/11/1997	Cook
	_A91.	5614617	03/25/1997	Cook
	_A92.	5635488	06/03/1997	Cook

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 7 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant: Serial No.: Devin Leake 10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

				
	_A93.	5637573	06/10/1997	Agrawal
	_A94.	5644048	07/01/1997	Yau
	_A95.	5645985	07/08/1997	Froehler
	_A96.	5652355	07/29/1997	Froehler
	_A97.	5652356	07/29/1997	Agrawal
	_A98.	5670633	09/23/1997	Cook
	_ A99.	5677437	10/14/1997	Teng
	_ A100.	5681941	10/28/1997	Cook
	_A101.	5708161	01/13/1997	Reese
	_ A102.	5734041	03/31/1998	Just
· ·	_A103.	5750666	05/12/1998	Caruthers
	_A104.	5756710	05/26/1998	Stein
	_A105.	5757710	05/26/1998	Li-Chun
	_A106.	5763588	06/09/1998	Metteucci
,	_A107.	5767264	06/16/1998	Otlvos
<u></u>	_A108.	5770713	06/23/1998	Imbach
		÷		

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 8 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant: Serial No.: Devin Leake 10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

· · · · · · · · · · · · · · · · · · ·			. 	
A1	09.	5773601	06/30/1998	Agrawal
A1	10.	6777092	07/07/1998	Cook
A1	11.	5792844	08/11/1998	Sangvhi
A1	12.	5792847	08/11/1998	Bhur
A1	13.	5811534	09/22/1998	Cook
A1	14.	5817781	10/06/1998	Swaminathan
A1	15.	5834607	11/10/1998	Manoharan
A1	16.	5849902	12/15/1998	Arrow
A1	17.	5852182	12/28/1998	Cook
A1	18.	5852188	12/22/1998	Cook
A1	19.	5883237	03/16/1999	Stec
A1	120.	5899136	03/30/1999	Scaringe
A1	121.	5912339	06/15/1999	Miller
A1	122.	5914396	06/22/1999	Cook
A1	123.	5919619	07/06/1999	Tullis
A1	124.	5948903	09/07/1999	Cook

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 9 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant: Serial No.:

Devin Leake 10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

A125.	5965722	10/12/1999	Ecker
A126.	5973136	10/26/1999	Agrawal
A127.	5989912	11/23/1999	Arrow
A128.	5998206	12/07/1999	Cowsert
A129.	6005094	12/21/1999	Simon
A130.	6005096	12/21/1999	Matteucci
A131.	6007992	12/28/1999	Lin
A132.	6028183	02/22/2000	Lin
A133.	6060592	05/09/2000	Acevedo
A134.	6111085	08/29/2000	Cook
A135.	6114513	09/05/2000	Cook
A136.	6127533	10/03/2000	Cook
A137.	6140482	10/31/2000	Lyer
A138.	6143881	11/07/2000	Metelev
A139.	6147200	11/14/2000	Manoharan
A140.	6153737	11/28/2000	Manoharan

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 10 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant: Serial No.: Devin Leake 10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

		······································	 	
·-··	_A141.	6166188	12/26/2000	Cook
	_A142.	6166197	12/26/2000	Cook
	_ A143.	6172209	01/09/2001	Manoharan
	_A144.	6197944	03/06/2001	Walder
	_A145.	6222025	04/24/2001	Cook
	_ A146.	6235886	05/22/2001	Manoharan
	_ A147.	6239265	05/29/2001	Cook
	_A148.	6242591	06/05/2001	Cole
	_ A149.	6265558	06/24/2001	Cook
	_ A150.	6271358	08/07/2001	Manoharan
	_A151.	6277892	08/21/2001	Fraser
	_ A152.	6300319	10/09/2001	Manohäran
	_ A153.	6307040	10/23/2001	Cook
	_ A154.	6322987	11/27/2001	Cook
	_ A155.	6326358	12/04/2001	Manoharan
	_A156.	6335437	01/01/2002	Manoharan

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 11 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant: Serial No.: Devin Leake

Filing Date:

10/551,350 October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

	_A157.	634614	02/12/2002	Metelev
· · · · · · · · · · · · · · · · · · ·	_A158.	6348312	02/19/2002	Peyman
	_A159.	6358931	03/19/2002	Cook
	_A160.	6359124	03/19/2002	Ecker
	_A161.	6369209	04/09/2002	Manoharan
	_ A162.	6369040	04/09/2002	Acevedo
	_A163.	6380368	04/30/2002	Froehler
	_ A164.	6395492	06/04/2002	Manoharan
	_A165.	6403781	06/11/2002	Cole
	_ A166.	6410702	06/25/2002	Swaminathan
	_ A167.	6414127	07/02/2002	Lin
	_A168.	6440943	08/27/2002	Cook
	_ A169.	6447998	09/10/2002	Froehler
	_ A170.	6476205	11/05/2002	Bhur
	_A171.	6495672	12/17/2002	Froehler
	_A172.	6525031	02/25/2003	Manoharan

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 12 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.:

10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

The second secon	and the second s	<u> </u>	the second control of
A173.	6534639	03/18/2003	Manoharan
A174.	6476752	06/10/2003	Manoharan
A175.	6624293	09/23/2003	Agrawal
A176.	6677445	01/13/2004	Innis
A177.	6811975	11/02/2004	Cook
A178.	6846921	01/25/2005	Innis
A179.	6673611	01/06/2004	Thompson
A180.	6977245	12/20/2005	Klinman
A181.	6958239	10/25/2005	Arrow
A182.	7067497	06/27/2006	Hanecak
A183.	6881831	04/19/2005	Lyer
A184.	5777092	11/06/2003	Morrissey
A185.	6005096	12/21/1999	Matteucci
	U.S. Publi	cation Documents	
Examiner Initial* A186.	Publication Number 20050239728	Date Published 10/27/2005	<u>Name</u> Pachuk

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 13 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.:

10/551,350

Filing Date: Confirmation No.:

October 19, 2006

For:

3238
Modified Polynucleotides for Use in RNA Interference

		the state of the s	
A187	. 20040266707	12/30/2004	Leake
A188	. 20030203486	10/30/2003	Sabatini
A189	. 20030228601	12/11/2003	Sabatini
A190	. 20030170642	09/11/2003	Caldwell
A191	. 20020006664	01/17/2002	Sabatini
A192	. 20030170891	09/11/2003	McSwiggen
A193	. 20040019008	01/29/2004	Lewis
A194	. 20040009938	01/15/2004	Manoharan
A195	. 20050020525	01/27/2005	McSwiggen
A196	. 20040014956	01/22/2004	Woolf
A197	20040096880	05/20/2004	Kmiec
A198	. 20040147022	07/29/2004	Baker
A199	20040147023	07/29/2004	Baker
A200	. 20040248299	12/09/2004	Jayasena
A201	. 20050026160	02/03/2005	Allerson
A202	20060178324	08/10/2006	Hadwiger

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 14 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.: 10/551,350

Filing Date:

October 19, 2006

Confirmation No.:

3238

For: Modified Polynucleotides for Use in RNA Interference

Control of the Contro	<u>an ing mga katang managan mana</u>		
A203	3. 20020128466	09/12/2002	Cole
A204	1. 20020160379	10/31/2002	Cook
A205	5. 20030036516	02/20/2003	Agrawal
A206	5. 20030045698	03/06/2003	Manoharan
A207	7. 20030096770	05/22/2003	Krotz
A208	3. 20030135033	07/17/2003	Klippel-Giese
A209	9. 20030190626	10/09/2003	Ravikumar
A210	0. 20040009938	01/15/2004	Manoharan
A211	1. 20040014108	01/22/2004	Eldrup
A212	2. 20040014957	01/22/2004	Eldrup
A213	3. 20040043948	03/04/2004	Baker
A214	4. 20040053875	03/18/2004	Kruetzer
A215	5. 20040054155	03/18/2004	Woolf
A210	6. 20040072779	04/15/2004	Kruetzer
A21′	7. 20040102408	05/27/2004	Kruetzer
A218	8. 20040167090	08/26/2004	Monaharan

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 15 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant: Serial No.: Devin Leake

Filing Date:

10/551,350 October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

·····				
	A219.	20050020521	01/27/2005	Rana
	A220.	20050130181	06/16/2005	McSwiggen
· · · · · · · · · · · · · · · · · · ·	A221.	20040058886	03/25/2004	Scaringe
	A222.	20050255487	11/17/2005	Khorova
	A223.	20040204420	10/14/2004	Rana
·	A224.	20030206887	11/06/2003	Morrissey
	A225.	20060127891	06/15/2006	McSwiggen
	A226.	20050181385	08/18/2005	Linsley
	A227.	20050059044	03/17/2005	Graham
	A228.	20060115461	06/01/2006	Robertson
	A229.	20060110829	05/25/2006	Robertson
	A230.	20060166234	07/27/2006	Robertson
	A231.	20060110766	05/25/2006	Robertson
	A232.	20050223427	10/06/2005	Leake
,	A233.	20060223777	10/05/2006	Vermeulen
	A234.	20070167384	07/19/2007	Leake

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Sheet 16 of 31 Form PTO-1449 Applicant: Devin Leake Serial No.: 10/551,350 Att'y Docket No.: 16542.16.1a.3 Group: 1635 Filing Date: October 19, 2006 Confirmation No.: 3238 For: Modified Polynucleotides for Use in RNA Interference Leake 07/26/2007 A235. 20070173476 Leake A236. 20070269889 11/22/2007 Leake A237. 20040198640 10/07/2004 A238. Leake 20040266707 12/30/2004 U.S. Application Documents Date Examiner Application Initial* Number Filed Name 09/19/2007 Khvorova A239. 11/857,732 Foreign Patent Documents Trans-Document Publ. Country or Sub Examiner Patent Office Class lation Initial* Class Number Date 08/03/2005 EP A240. 1559785 A241. 05-097992 10/20/2005 WO A242. 08/25/2005 WO 05-078094

Examiner:

A243.

A244.

04-078946

04-045543

Date Considered:

09/16/2004 WO

06/03/2004 WO

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 17 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.: Filing Date:

10/551,350 October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

	A245.	04-011624	02/05/2004	WO
<u></u>	A246.	01-020015	03/22/2001	WO
	A247.	00-012454	03/09/2000	WO
	A248.	97-042819	11/20/1997	WO
	A249.	06-071410	07/06/2006	WO
····	A250.	06-058046	06/01/2006	WO
·	A251.	06-058048	06/01/2006	WO
	A252.	06-060246	06/08/2006	WO
	A253.	04-009847	01/29/2004	WO
	A254.	02-094185	11/28/2002	WO
	A255.	1389637	02/18/2004	EP
	A256.	93-004204	03/04/1993	WO
	A257.	94-021825	09/29/1994	WO
	A258.	94-026887	11/24/1994	WO
	A259.	03-070193	08/28/2003	WO
	A260.	03-070918	08/28/2003	WO

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 18 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.: Filing Date:

10/551,350 October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

		and the second second			 	<u> </u>	
	_A261.	03-074654	09/12/2003	WO			
	_A262.	05-019453	03/03/2005	WO			
	_A263.	04-015107A2	02/19/2004	WO			
<u> </u>	_A264.	04-015107A3	02/19/2004	WO			
	_A265.	03-072705A2	09/04/2003	WO			
	_A266.	03-072705A3	09/04/2003	WO			
	_A267.	02-044321	06/06/2002	WO			
	_A268.	04-080406	09/23/2004	WO			
· · · · · · · · · · · · · · · · · · ·	_A269.	04-091515	10/28/2004	WO			
	_A270.	04-109290	12/16/2004	WO			
<u> </u>	_A271.	99-032619	07/01/1999	WO			
	_A272.	01-075164	10/11/2001	WO			
	_A273.	1114623	10/17/2001	EP			
	_A274.	03-064625	08/07/2003	WO			
 	A275.	03-064626	08/07/2003	WO			
	_A276.	94-001550	01/20/1994	WO			

Examiner:

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1449 Applicant: Serial No.: Filing Date: Confirmation No.: For:	Devin Leake 10/551,350 October 19, 2006 3238 Modified Polynucleotides for the contract of the	Sheet 19 of 31 Att'y Docket No.: 16542.16.1a.3 Group: 1635 Use in RNA Interference
 	Other Docum	nents
(including author (it year).	f listed), title, relevant pages, date	of publication including at least month and
Examiner <u>Initial</u> *		
	Vermeulen, A. et al., "The Copecificity and Efficiency"; RNA,	ontribution of dsRNA Structure to Dicer 11:674-682 (2005).

(08/24/04).

______A279. Ambion, High Throughput siRNA Delivery in Vitro: From Cell Lines to Primary Cells, TechNotes 12(2); www.ambion.com/techlib/tn/122/3.html (Downloaded 7/18/05).

April 8, 2003

April 8, 2003

April 8, 2003

Dhellin, Oliver et al., "Functional differences between the human LINE retrotranspositon and retroviral reverse transcripts for in vivo mRNA reverse transcription," the EMBO Journal, Vol. 16, pp. 6590-6602; 1997.

A282. Press Release, "Dharmacon Launches siArray RTFTM siRNA Libraries - First Ever Using Reverse Transfection Technology, qb Perbio Solutions for Life Science; Layfayette, Colo.; April 22, 2005.

Atlas Venture, Dharmacon and Akceli Announce Research Collaboration to Combine reverse Transfection and siRNA for High Throughput Gene

Boston Business Journal, "Biotech firm Akceli wins first patent,"

www.bizhournals.com/boston/stories/2003/04/07/daily13.html

www.atlasventure.com/home/news content.asp?ne id=1741

Examiner:

A278.

A280.

Silencing,

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1449 Applicant: Serial No.: Filing Date: Confirmation No. For:	Sheet 20 of 31 Devin Leake 10/551,350
A283.	Hannon, Gregory J., "RNA Interference," Nature, Vol. 418; July 11, 2002. (www.nature.com/nature)
A284.	Ketting, R.F. et al., (2001) Dicer Functions in RNA Interference and in Synthesis of small RNA Involved in Developmental Timing in C. elegans Genes Dev., 2001 Oct 15, 15(20):2654-9
A285.	Paddison, P.J., et al., "A Resource for Large -Scale RNA Interference-Based screens in mammals," Nature, Vol 428; March 25, 2004 (www.nature.com/nature).
A286.	He, L. et al, "MicroRNAs with a big role in gene regulation," Nature, Vol. 5, pp. 522-532, July 2004 (www.nature.com/reviews/genetics).
A287.	Hannon, Gregory J. et al, "Unlocking the Potential of the Human Genome with RNA Interference," Nature, Vol 431; Sept 16, 2004 (www.nature.com/nature)
A288.	Hammond, S.M., et al. "Post-Transcriptional Gene Splicing by Double-Stranded RNA," Nature, Vol. 2; Feb., 2001 (www.nature.com/reviews/genetics)
A289.	Hannon G., "Growth control in mammalian cells: Post transcriptional gene silencing" (wwww.cshl.org/public/SCIENCE/hannon.html) (2004).
A290.	Denali, A.M. et al., "RNAi: an ever growing puzzle," TRENDS in Biochemical Sciences, Vol. 28, No. 4, April 2003.
A291.	Silva, J.M. et al., "RNA interference: a promising approach to antiviral therapy?" Trends in Molecular Medicine, Vol.8, No. 11, November 2002.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1449 Applicant: Serial No.: Filing Date: Confirmation No. For:	Devin Leake 10/551,350 October 19, 2006 : 3238 Modified Polynucleotides for Use in RN	Sheet 21 of 31 Att'y Docket No.: 16542.16.1a.3 Group: 1635 A Interference
A292.	Qiagen Website (www.qiagen.com), Tra siRNA (dsRNA) as Nucleic Acid, Cell Reco	
A293.	"The HiPerformance Algorithm Designs Hi Technical www1.qiagen.com/literature/resources/RNA pdf; downloaded 7/18/05.	Information,
A294.	Ziauddin, J. et al., "Microarrays of cells ex to Nature, Nature, 411, pp. 107-110 (03 May	pressing defined cDNAs," Letters y 2001); doi:10.1038/35075114.
A295.	Reverse Transfection Homepage and Guid http://staffa.wi.mit.edu/sabatini_public/reve (downloaded 8/24/04).	
A296.	Product Insert, siARRAY™ siRNA Librar Technologies	ies, Version 2.0 Dharmacon RNA
A297.	SuperArray Bioscience Corporation, Intwww.superarray.com/RNAiArrayPlates.php	
A298.	SuperArray Bioscience Corporation www.superarray.com/manuals/Present_Arra 7/18/2005)	
A299.	SuperArray Bioscience Corporation, Newly siRNA Products, www.superarr (downloaded 7/18/2005)	[™] Released SureSilencing [™] Mouse ay.com/siRNAnew.php?sp=Mouse

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE	·	
Form PTO-1449 Applicant: Serial No.:	Devin Leake 10/551,350	Sheet 22 of 31 Att'y Docket No.: 16542.16.1a.3
Filing Date:	October 19, 2006	Group: 1635
Confirmation No. For:	: 3238 Modified Polynucleotides for U	Jse in RNA Interference
A300.		n, Newly Released SureSilencing [™] Human superarray.com/siRNAnew.php?sp=Human
A301.	QIAGEN, Transfection Reagent So	elector Kit Handbook, January 1999.
A302.	Bernstein, E., et al., "The rest Cambridge University Press	is Silence," RNA (2001), 7:1509-1521.
A303.	Mousses et al., RNAi Microarra Genome Research 2003, Vol. 13, I	y Analysis in Cultured Mammalian Cells. Pages 2341-2347
A304.	Vanhecke et al., High-Through Oncogene 01 November 2004 Vol	put Gene Silencing Using Cell Arrays, 23, pages 8353-8358.
A305.		Microarrays, High-Throughput Loss-of-Cells. PNAS. 27 April 2004, Vol. 101, No.
A306.	Kumar et al., High-Throughput Se Silencing, Genome Research, 2003	election of Effective RNAi Probes for Gene 3, Vol 13, pp. 2333-2340.
A307.	Bailey et al, Applications of Throughput Drug Discovery Today	Transfected Cell Microarrays in High- y, 2002, Vol 7, pp S113-S118.
A308.		cocollagen-based cell Transfection array in ne Functions and in Drug Discover, Current cember 2004, Vol 1, pp 287-294
A309.	International Search Report from I pages.	PCT/US2005/042407, September 8, 2006, 2

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1449 Applicant: Serial No.: Filing Date: Confirmation No. For:	Sheet 23 of 31 Devin Leake 10/551,350
A310.	International Preliminary Report on Patentability from PCT/US2005/042407, May 22, 2007, 4 pages.
A311.	Written Opinion from PCT/US2005/042407, June 20, 2006, 3 pages.
A312.	International Search Report from PCT/US2005/042403, September 26, 2006, 4 pages.
A313.	International Preliminary Report on Patentability from PCT/US2005/042403, May 22, 2007, 4 pages
A314.	Written Opinion from PCT/US2005/042403, June 8, 2006, 3 pages.
A315.	International Search Report from PCT/US/042385, April 5, 2007, 3 pages.
A316.	International Preliminary Report on Patentability from PCT/US2005/042385, May 22, 2007, 4 pages.
A317.	Written Opinion from PCT/US2005/042385 January 29, 2007, 3 pages.
A318.	International Search Report from PCT/US2005/042404, May 22, 2007, 5 pages.
A319.	International Preliminary Report on Patentability from PCT/US2006/042404, May 22, 2007, 5 pages.
A320.	Written Opinion from PCT/US2006/042404, March 7, 2007, 4 pages.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE		
Form PTO-1449	D : 7 1	Sheet 24 of 31
Applicant: Serial No.:	Devin Leake 10/551,350	Att'y Docket No.: 16542.16.1a.3
Filing Date:	October 19, 2006	Group: 1635
Confirmation No.		
For:	Modified Polynucleotides for Us	se in RNA Interference
<u> </u>		<u>ar en </u>
A321.	•	Mutations and Chemical Modifications in rch, Vol. 31, No. 2, pages 589-595 Oxford
A322.		my of a dsRNA Trigger: Differential Strands in RNA Interference, November 1077-1087.
A323.	Elbashir et al., RNA Interference RNAs, January 2001, Genes & Deve	is Mediated by 21- and 22-Nucleotide elopment, Vol. 15, pages 188-200.
A324.	properties, and activity as	onjugated Oligonucleotides: Synthesis, inhibitors of replication of human lture, September 1989, Proc. Natl. Acad.
A325.	Boiziau et al. (1995) Antisense 2"-inhibitors of reverse transcription, N	O-alkyl Oligoribinucleotides are efficient fucleic Acids Res. 23/1:64-71.
A326.	Chiu et al. (2003) siRNA functi Analysis, RNA 9/9:1034-1048	on in RNAi: A Chemical Modification
A327.	Conrad et al. (1995) Enzymatic identification of important phosp substrates, Nucleic Acids Res. 23/1	synthesis of 2'-modified nucleic acids: phate and ribose moieties in Rnase P 1:1845-1853
A328.		Variations and Stabilizing modifications of Is, Nucleic Acids Res. 31/11:2705-2716
A329.		rison of different antisense strategies in

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1449 Applicant: Serial No.:	Sheet 25 of 31 Devin Leake 10/551,350 Att'y Docket No.: 16542.16.1a.3
Filing Date: Confirmation No. For:	October 19, 2006 Group: 1635
	phosphorothioates and small interfering RNA, Nucleic Acids Res. 31/12:3185-3193
A330.	Holen et al. (2003) Similar behavior of single-strand and double-strand siRNAs suggests they act through a common RNAi pathway, Nucleic Acids Res. 31/9:2401-2407
A331.	Johansson et al. (1994) Target-specific arrest of mRNA translation by antisense 2'-O-Alkyloligoribonucleotides, Nucleic Acids Res. 22/22:4591-4598
A332.	Larrouy et al. (1995) Rnase H is responsible for the non-specific inhibition of in vitro translation by 2'-O-alkyl chimeric oligonucleotides: high affinity or selectivity, a dilemma to design antisense oligomers, Nucleic Acids Res. 23/17:3434-3440.
A333.	Liang, L. et al (2002) Optimizing the delivery systems of chimeric RNA-DNA oligonucleotides: Beyond general oligonucleotide transfer, Eur J. Biochem 269:5953-5758.
A334.	Majlessi et al. (1998) Advantages of 2'-O-methyl oligoribonucleotide probes for detecting RNA targets, Nuclic Acids Res.26/9:2224-2229
A335.	Monia et al. (1993) Evaluation of 2'-Modified Oligonucleotides Containing 2'-Deoxy gaps as Antisense Inhibitors of Gens Expression, J. Biol. Chem. 268/19:14514-14522.

A336.

Date Considered:

Nykanen et al. (2001) ATP Requirements and Small Interfering RNA Structure in the RNA Interference Pathway, Cell 107:309-321

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1449 Applicant: Serial No.: Filing Date: Confirmation No. For:	Sheet 26 of 31 Devin Leake 10/551,350
A337.	Stump et al. (1999) The use of modified primers to eliminate cycle sequencing artifacts, Nucleic Acids Res. 27/23:4642-4648
A338.	Uchiyama et al. (1994) Studies of the Interactions Between Escherichia coli Ribonuclease HI and Its Substrate, J Mol. Biol. 243:782-791
A339.	Braasch, D. et al (2003) "RNA Interference in Mammalian Cells by Chemically-modified RNA" Biochemistry 42/26:7967-7995
A340.	Harborth, J. et al. (2003-4) "Sequence, Chemical, and Structural Cariation of Small Interfering RNAs and Short Harpin RNAs and the Effect on Mammalian Gene Silencing" Antisense & Nucleic Acid Drug Development 13/2:83-105
A341.	Elbashir, S. M. et al (2001) Functional Anatomy of siRNAs for Mediating efficient RNAi in Drosophila melanogaster embyro lysate, The EMBO Journal 20/23:6877-6888
A342.	Jackson, A. L. et al. (2003) Expression Profiling Reveals off-target Gene Regulation by RNAI, Nature Biotechnology 21/6:635-637
A343.	Lubini et al. Stabilizing effects of the RNA 2'-sustitutent Crystal Structure of an Oligodeoxynucleotide duplex Containing 2'-O-methylated adenosines. Chem. Biol. 1004 Sept 1(1): 39-45
A344.	Dharmacon RNA Technologies, Dharmacon and Merck's Rosetta Collaborate to Assess Multiple Factors Affecting Efficacy and Specificity of siRNA for Gene Silencing, October 8, 2003, Press Release, Layfette, CO
A345.	Rosetta siRNA Experiments Performed in 2007, pp 1-11

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1449 Applicant: Serial No.: Filing Date: Confirmation No. For:	Sheet 27 of 31 Devin Leake 10/551,350
A346.	Rossi, J., "A Cholesterol Connection in RNAi," Nature, November 2004, Vol. 432, pp. 155-156,
A347.	Soutscheck, J., et al., "Therapeutic Silencing of an Endogenous Gene by Systemic Administration of Modified siRNAs," Nature, November 2004, Vol. 432, pp. 173-178.
A348.	Kim, D. H. et al., "Synthetic dsRNA Dicer Substrates Enhance RNAi Patency and efficacy, Nature Biotechnology, Advanced Online Publication, (2004), p. 1-5, Published Online December 26, 2004.
A349.	Paddison, Patrick J. et al., "Short hairpin RNAs "shRNAs) induce sequence-specific silencing in mammalian cells", Genes & Development 16, (2002), p. 946-958.
A350.	Zhang, Haidi et al., "Human Dicer Preferentially cleaves dsRNAs at their termini without a requirement for ATP", The EMBO Journal Vol. 21, No. 21, (2002), p. 5875-5885.
A351.	Hohjoh, Hirohiko, "Enhancement of RNAi activity by improved siRNA duplexes", FEBS letters 557, (2004), p. 193-198.
A352.	Ma, Jin-Baio et al., "Structural basis for overhanging-specific small interfering RNA recognition by PAZ domain", Nature, Vol. 429, May 20, 2004, p. 318-322.
A353.	Siolas, Despina, "Synthetic shRNAs as potent RNAi triggers", Nature Biotechnology, p. 1-5, published online December 26, 2004.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1449 Applicant: Serial No.: Filing Date: Confirmation No. For:	Sheet 28 of 31 Devin Leake 10/551,350
A354.	Zeng, Yan et al., "Both Natural and Designed Micro RNAs Technique Can Inhibit the Expression of Cognate mRNAs When Expressed in Human Cells", Molecular Cell, Vol. 9, June 2002, p. 1327-1333
A355.	Holen et al. (2002) Positional Effects of short interfering RNAs targeting the human coagulation trigger Tissue Factor, Nucleic Acid Research, 30/8:1757-1766.
A356.	International Search Report from PCT/US05/011008, March 31, 2005, 5 Pages
A357.	Written Opinion from PCT/US05/011008, March 31, 2005, 6 Pages
A358.	International Search Report from PCT/US05/003365, April 2, 2005, 7 Pages
A359.	Written Opinion from PCT/US05/003365, April 2, 2005, 10 Pages
A360.	Notification Regarding Review of Justification for Invitation to Pay Additional Fees from PCT/US05.003365, April 2, 2005, 4 Pages
A361.	Office Action dated 03/21/07 cited in Application No. 11/283,484 (Copy Attached)
A362.	Office Action dated 07/08/08 cited in Application No. 11/283,484 (Copy Attached)
A363.	Office Action dated 10/15/08 cited in Application No. 11/283,482 (Copy Attached)
A364.	Office Action dated 11/03/08 cited in Application No. 11/283,483 (Copy Attached)

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA eFILE Form PTO-1 Applicant: Serial No.: Filing Date: Confirmation For:	D 16 O n No.: 33	Devin Leake 10/551,350 October 19, 2006 3238 Modified Polynucleotides for U					Sheet 29 of 31 Att'y Docket No.: 16542.16.1a.3 Group: 1635 se in RNA Interference					
A30	65. Offic		dated	12/09/08	cited	in	Application	No.	11/283,481	(Сору		
A30	66. Offic Attac		dated	08/23/05	cited	in	Application	No.	11/019,831	(Copy		
A30	67. Offic Attac		dated	02/21/06	cited	in	Application	No.	11/019,831	(Сору		
A30	68. Offic Attac		dated	06/28/06	cited	in	Application	No.	11/019,831	(Сору		
A3	69. Offic Attac		dated	02/09/07	cited	in	Application	No.	11/019,831	(Сору		
A3	70. Offic Attac		dated	10/30/07	cited	in	Application	No.	11/019,831	(Copy		
A3		ce Action ched)	dated	09/04/08	cited	in	Application	No.	11/019,831	(Copy		

A372.

A373.

A374.

Attached)

Attached)

Attached)

Date Considered:

Office Action dated 09/12/08 cited in Application No. 11390,829 (Copy

Office Action dated 02/22/08 cited in Application No. 11/051,195 (Copy

Office Action dated 12/18/08 cited in Application No. 11/051,195 (Copy

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

VIA	eFI.	LE	
Form	рт	' O-1	1449

Sheet 30 of 31

Applicant:

Devin Leake

Serial No.:

10/551,350

Filing Date:

October 19, 2006

Att'y Docket No.: 16542.16.1a.3 Group: 1635

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

A375.	Office Action Attached)	dated	12/31/08	cited	in .	Application	No.	11/619,993	(Сору
 A376.	Office Action Attached)	dated	01/14/05	cited	in	Application	No.	10/406,908	(Сору
A377.	Office Action Attached)	dated	04/05/05	cited	in	Application	No.	10/406,908	(Copy
 A378.	Office Action Attached)	dated	09/23/05	cited	in	Application	No.	10/406,908	(Сору
 A379.	Office Action Attached)	dated	01/27/05	cited	in	Application	No	. 10/613,077	(Сору
 _A380.	Office Action Attached)	dated	04/12/05	cited	in	Application	No	. 10/613,077	(Сору
 _A381.	Office Action Attached)	dated	09/07/05	cited	in	Application	ı No	. 10/613,077	(Сору

Examiner: /Amy Bowman/

Date Considered:

05/04/2009

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 31 of 31

Group: 1635

Att'y Docket No.: 16542.16.1a.3

Applicant:

Devin Leake

Serial No.: Filing Date:

10/551,350 October 19, 2006

Confirmation No.:

3238

For:

Modified Polynucleotides for Use in RNA Interference

References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

CRB0000007109V001

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.